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AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions of claims in the application.

1. (Currently amended) An information retrieval system, comprising:
a hierarchal analysis component that receives a query and processes probabilities associated with N categories that are collectively assigned ~~associated with~~ a top-level classifier and individually ~~associated with~~ assigned sublevel classifiers, each category having one or more topics, N being an integer, at least one of the one or more topics associated with a prior probability defined prior to receipt of the query, the prior probability indicating a likelihood that a particular topic is desired absent additional information; and
an interactive component that provides feedback derived from the query, the probabilities associated with the N categories, and the prior probability associated with the at least one topic, the feedback being utilized to determine at least one category of the N categories to facilitate retrieval of at least one of the one or more topics.
2. (Cancelled).
3. (Currently amended) The system of claim 1, ~~wherein~~ the top-level classifier and sublevel classifiers are provided by at least one of a Support Vector Machine, Naïve Bayes, Bayes Net, decision tree, similarity-based, vector-based and a Bayesian-based classification model.
4. (Previously presented) The system of claim 3, further comprising an automatic classifier construction component that employs a learning model to build the classifiers.
5. (Currently amended) The system of claim 4, ~~wherein~~ the learning model is associated with a Support Vector Machine and employs Sequential Minimal Optimization (SMO) to train the classifiers.

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6. (Original) The system of claim 4, further comprising a data structure that includes a mapping of I possible queries and one or more associated topics, I being an integer, to enable learning for the classifiers.

7. (Currently amended) The system of claim 6, ~~wherein~~ the data structure is updated *via* at least one of implicit and explicit user actions associated with a query to facilitate improved learning models.

8. (Currently amended) The system of claim 6, ~~wherein~~ the data structure is centrally located ~~to enable monitoring of~~ and retains monitored implicit and explicit user actions associated with queries from a plurality of users to facilitate improved learning models.

9. (Currently amended) The system of claim 1, ~~wherein~~ the top-level classifier is employed to drive the sublevel classifiers at run time to form a hierarchical classification structure.

10. (Currently amended) The system of claim 9, ~~wherein~~ the query and the top-level classifier are employed to determine the most likely of the N categories.

11. (Previously presented) The system of claim 10, further comprising a context disambiguation component that utilizes the query and the top-level classifier to determine the feedback.

12. (Currently amended) The system of claim 11, ~~wherein~~ the context disambiguation component utilizes the query and the feedback to drive the sublevel classifiers in order to determine a desired topic.

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13. (Currently amended) The system of claim 11, ~~wherein~~ the context disambiguation component further comprises a presentation component for interfacing to a user and an analytical component to facilitate feedback and decision-making related to the feedback.

14. (Currently amended) The system of claim 13, ~~wherein~~ the analytical component includes a cost-benefit analysis considering the cost of the dialog with the information value of the dialog.

15. (Currently amended) The system of claim 13, ~~wherein~~ the analytical component includes a decision analysis for determining the nature and quantity of a clarification dialog.

16. (Currently amended) The system of claim 13, ~~wherein~~ the analytical component includes a computation of the value of information associated with feedback gained during a clarification dialog to guide the nature and quantity of the clarification dialog.

17. (Currently amended) The system of claim 13, ~~wherein~~ the analytical component employs at least one of a rule-based policy and an expected utility policy that controls if and how dialog is invoked based on the distribution of probabilities assigned to topics at one or more layers of a classification scheme.

18. (Currently amended) The system of claim 17, ~~wherein~~ the analytical component analyzes probabilistic weights associated with each category and related subtopic for determining feedback and presentation to the user.

19. (Currently amended) The system of claim 17, ~~wherein~~ the analytical component analyzes probabilistic weights as a spread across each category and related subtopic for determining feedback and presentation to the user.

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20. (Currently amended) The system of claim 13, ~~wherein~~ the presentation component includes a ranked display of most likely N categories.

21. (Currently amended) The system of claim 20, ~~wherein~~ at least one of the most likely N categories is selected to provide a ranked display of one or more topics.

22. (Currently amended) The system of claim 1, ~~wherein~~ information is retrieved as part of a help system.

23. (Currently amended) The system of claim 1, ~~wherein~~ information is retrieved from a network-based system.

24. (Currently amended) The system of claim 1, ~~wherein~~ the probabilities are determined *via* a hand-crafted analysis.

25. (Original) The system of claim 1, further comprising L levels of N categories, each category having one or more topics, wherein L and N are integers.

26. (Original) A computer-readable medium storing the computer-executable components of claim 1.

27. (Currently amended) A method providing information retrieval from a database, comprising:

assigning prior probabilities to one or more topics prior to receipt of a query, the prior probabilities relate to a likelihood that a particular topic is desired by a user absent additional information;

determining probabilities associated with one or more categories that are associated with the one or more topics upon receipt of a query through employment of a top-level classifier assigned collectively to a plurality of categories that include the one or more categories and sublevel classifiers individually assigned to each category within the plurality of categories;

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providing feedback that is derived from [[a]] the query, the prior probabilities, and the determined probabilities associated with the one or more categories and the one or more ~~associated~~ topics; and

resolving at least one category of the one or more categories based upon the feedback to facilitate retrieval of at least one of the one or more associated topics; ~~and~~

~~building a top-level classifier for the one or more categories and a sublevel classifier for each category of the one or more topics associated with the one or more categories.~~

28. (Cancelled).

29. (Currently amended) The method of claim 27, ~~wherein~~ the classifiers are at least one of a vector-based and a Bayesian-based model.

30. (Original) The method of claim 29, further comprising,
mapping I possible queries and associated topics within a data structure, I being an integer, to enable learning of the classifiers.

31. (Original) The method of claim 30, further comprising,
monitoring implicit and explicit user actions associated with a query to facilitate improved learning models.

32. (Original) The method of claim 30, further comprising,
monitoring a central data location for implicit and explicit user actions associated with queries from a plurality of users to facilitate improved learning models.

33. (Currently amended) The method of claim 27, ~~wherein~~ the top-level classifier is employed to drive the sublevel classifiers at run time to form a hierarchical classification structure.

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34. (Currently amended) The method of claim 33, wherein the query and the top-level classifier are employed to determine the most likely of the one or more categories.

35. (Original) The method of claim 34, further comprising, utilizing the query and the top-level classifier to determine the feedback.

36. (Original) The method of claim 35, further comprising, utilizing the query and the feedback to drive the sublevel classifiers in order to determine a desired topic.

37. (Original) The method of claim 27, further comprising, utilizing at least one of a cost benefit analysis and a decision analysis for determining the feedback.

38. (Original) The method of claim 35, further comprising, utilizing rule-based policies and expected-utility policies for establishing probabilistic thresholds associated with the feedback.

39. (Currently amended) A system providing information retrieval, comprising:
means for assigning prior probabilities to one or more topics prior to receipt of a query, the prior probabilities relate to a likelihood that a particular topic is desired by a user absent additional information;

means for determining probabilities associated with N categories upon receipt of a query, each category having at least one of the one or more topics, N being an integer greater than one, the probabilities are determined through employment of a top-level classifier collectively assigned to the N categories and sublevel classifiers individually assigned to each of the N categories, the top-level classifier and sublevel classifiers are provided by at least one of a Support Vector Machine, Naive Bayes, Bayes Net, decision tree, similarity-based, vector-based and a Bayesian-based classification model;

means for providing feedback that is derived from a query, the prior probabilities, and the probabilities associated with the N categories ~~and the one or more topics;~~ and

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means for determining at least one category of the N categories based upon the feedback to facilitate retrieval of at least one of the one or more topics; and

~~means for building a top level classifier for the N categories and a sublevel classifier for each category of the one or more topics associated with the N categories.~~

40. (Cancelled).

41. (Cancelled).

42. (New) A computer-readable medium comprising instructions for performing the method of claim 27.